What is claimed:

1. A process for preparing a 4α-aryl substituted epicatechin derivative, which process comprises the steps of:

   (a) protecting the C-3 hydroxyl group of 5,7,3',4'-tetra-*O*-benzylepicatechin;

   (b) oxidizing the C-4 position of the C-3 protected 5,7,3',4'-tetra-*O*-benzylepicatechin;

   (c) adding a nucleophilic aryl organometallic reagent to the C-4 oxidized, C-3 protected 5,7,3',4'-tetra-*O*-benzylepicatechin; and

   (d) deoxygenating the C-4 position of the C-3 protected 4-aryl-5,7,3',4'-tetra-*O*-benzyl-4-hydroxyepicatechin to give a C-3 protected 4α-aryl-5,7,3',4'-tetra-*O*-benzylepicatechin.

2. The process of Claim 1, further comprising the step of removing the C-3 protecting group(s).

3. The process of Claim 1, further comprising the step of removing benzyl groups.

4. The process of Claim 3, wherein the benzyl groups are removed by hydrogenolysis.

5. The process of Claim 3, further comprising the step of acetylating hydroxyl groups.

6. The process of Claim 1, wherein the 4-aryl substituent is a derivative of epicatechin or of catechin.

7. The process of Claim 5, wherein the epicatechin or catechin is linked through the C-8 position of the epicatechin or catechin.

8. The process of Claim 5, wherein the nucleophilic aryl organometallic reagent is formed by reacting a C-3 protected 5,7,3',4'-tetra-*O*-benzyl-8-bromoepicatechin with *tert*-butyllithium.

9. The process of Claim 1, wherein the 4-aryl substituent is trimethoxyphenyl.

10. The process of Claim 1, wherein the C-3 protecting group is a benzyl group or a trialkylsilyl protecting group.

11. The process of Claim 10, wherein the trialkylsilyl protecting group is a *tert*-butyldimethylsilyl group.

12. The process of Claim 1, wherein a C-3 protected 5,7,3',4'-tetra-*O*-benzyl-4-ketoepicatechin is produced in the oxidizing step.

13. The process of Claim 12, wherein the oxidizing step is carried out by:

    (a) reacting the C-3 protected 5,7,3',4'-tetra-*O*-benzylepicatechin with a quinone-type oxidizing agent to form a C-3 protected 5,7,3',4'-tetra-*O*-benzyl-4-hydroxyepicatechin; and

    (b) reacting the C-3 protected 5,7,3',4'-tetra-*O*-benzyl-4-hydroxyepicatechin with *N*-methylmorpholine-*N*-oxide and tetrapropylammonium perruthenate.

14. The process of Claim 1, wherein the deoxygenating step is accomplished by reacting the 4-aryl-5,7,3',4'-tetra-*O*-benzyl-4-hydroxyepicatechin with a trialkylmetal hydride and an organic acid.

15. The process of Claim 14, wherein the trialkylmetal hydride is tributyltin hydride or triethylsilane and the organic acid is trifluoroacetic acid.

16. The process of Claim 2, further comprising the step of derivatizing the 4-aryl-5,7,3',4'-tetra-*O*-benzylepicatechin at a C-3 position to form at least one C-3 ester.

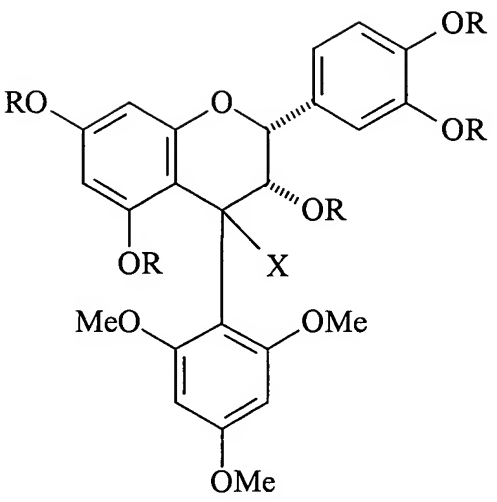
17. The process of Claim 16, wherein the derivatizing agent is selected from the group consisting of caffeic, cinnamic, coumaric, ferulic, gallic, hydroxybenzoic and sinapic acid.

18. The process of Claim 16, further comprising the step of removing the benzyl groups.

19. The process of Claim 18, wherein the benzyl groups are removed by hydrogenolysis.

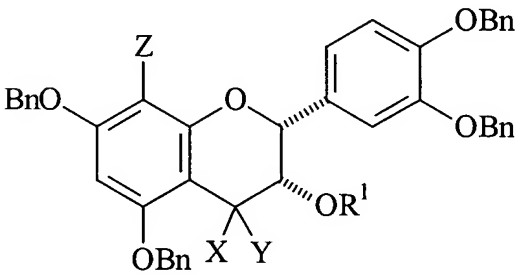
20. The process of Claim 18, further comprising the step of acetylating hydroxyl groups.

21. A compound of formula:



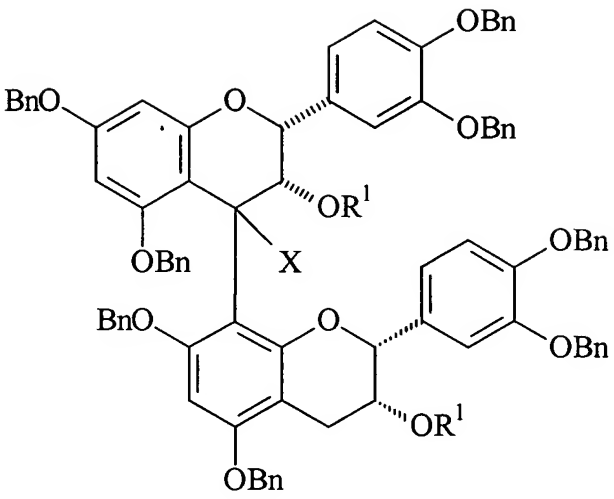
wherein R is hydrogen, benzyl or acetyl and X is hydroxy or β-hydrogen.

22. A compound of formula:



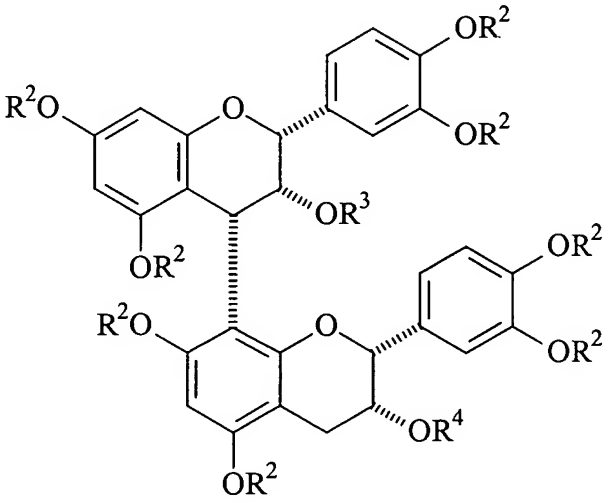
wherein R^1 is a silyl-based protecting group or a benzyl-type protecting group, and X and Y are independently hydrogen or hydroxy, or X and Y together are oxygen, and Z is hydrogen or a halogen.

23. A compound of formula:



wherein R^1 is a silyl-based protecting group or a benzyl-type protecting group and X is hydroxy or β-hydrogen.

24. A compound of formula:



where R^2 is hydrogen, benzyl, or acetyl and where R^3 and R^4 are independently hydrogen, acetyl, a protected galloyl, or galloyl.